



CAMPUS PLANNING, DEVELOPMENT & MAINTENANCE OFFICE
UNIVERSITY OF THE PHILIPPINES MANILA
The Health Sciences Center
P. Pura Street, Ermita, Manila Tel. No. 525-2233 Telefax No. 526-8420



PROJECT TITLE : **CONSTRUCTION OF POWER HOUSE AND SUPPLY AND
INSTALLATION OF GENERATOR SET**
SHS Koronadal Extension Campus, South Cotabato
University of the Philippines Manila

SUBJECT : **SCOPE OF WORKS AND SPECIFICATIONS**

Division 1 - General

01000 General Requirements



CPDMO10002964

1. The Contractor shall furnish all materials, equipment, tools, apparatus, appliances, accessories, transportation, labor and supervision required for the complete construction of the subject project, as shown on the drawings and called for in these specifications, ready for use.
2. All Contractors submitting proposal for this project shall first examine the site. All proposals shall take into consideration all such conditions that may affect the work under this contract. The specifications and plans shall form part as one. Anything mentioned on plans and not mentioned on the scope of work and specifications and vice versa shall be properly consulted to the CPDMO Project Architect/Engineer for clarification. Any work or materials not in accordance with the drawings or specifications shall be replaced with new at the Contractor's expense.
3. The Contractor shall coordinate his work with all parties to ensure proper phasing or schedule of works. The Contractor shall engage under him, a registered Engineer or Architect to supervise his work. He shall remain at all times in the construction site.
4. A logbook shall be available at the site. It shall contain the daily activities in the site, including weather condition, delivery, manpower and other matter pertaining to the condition of the project. It will also serve as data for Contractor and the Project Inspector.
5. Identification Card of construction workers and engineer/representative shall be supplied by CPDMO with corresponding fees; it should be worn at all times while inside the building/campus premises. Those without IDs shall not be allowed to enter the premises for security purposes.
6. No alteration or additional work that will result in an additive or deductive cost change from the Contract shall be allowed without the approval of the chancellor.
7. Complete specifications with product sample shall be submitted by the contractor to CPDMO and end-user for evaluation. Inspection of the Project Architect/Engineer in-charge shall be required prior to installation of any item/material on the construction.
8. Regular coordination meeting shall be conducted with CPDMO, Contractor and End-user for proper project monitoring.
9. Existing condition of the work site shall be documented by the contractor and photos shall be taken before commence of work to ensure such status. Any

damage on the areas due to the contractor's on-going work shall be refurbished at his expense.

10. The Contractor shall provide a complete copy of "As built plans" of the project/unit concerned which shall include all the civil, architectural, plumbing, electrical and other related layouts in 20" x 30" original sheets. It should be properly drawn indicating all the specifications, layouts, tables and necessary data. An initial layout should be submitted in a B4 sheet for checking and approval of Project Architect/Engineer. Final "As built plans" shall be submitted with soft and hard copies.
11. The Contractor shall promptly remove from the premises all rubbish, trash, debris, and all superfluous building materials weekly. After the completion of all works, restore all areas that were damaged as affected by the construction works and leave the site clean to the satisfaction of the Project Inspector or his representative and End-user.
12. All materials removed from the unit shall be properly documented prior to turn-over to the End-user for proper safe keeping.

01300 Submittals

Shop Drawings, Product Data and Samples

- Submit to the CPDMO of shop drawings, product data and /or samples of all materials for review.
- The CPDMO's review shall be limited to quality and design intent. It shall be the Contractor's responsibility to verify quantities and sizes, and make corrections observed and noted by CPDMO on any returned submissions.
- No work requiring submissions or samples shall be commenced until submission has been reviewed by the End User and or CPDMO.
- Final Acceptance of colors and finishes will be made from samples applied on the job.
- Submit on all materials, products, and samples which are required by the work.
- All submittals shall be channeled from General Contractor to CPDMO, Physical Plant A-E Services, and back to the General Contractor. This procedure applies to original submittals as well as required resubmittals. Each organization shall keep its required number of copies and/or make necessary copies from the originals. The Contractor will make all corrections noted on check sets, if necessary, and return for review as required by CPDMO.

01510 Temporary Facilities

- Provide Temporary enclosures/canvass on all areas for building protection. Such coverings shall be adequate enough to cover all the building facilities throughout the span of project.
- Charges for restoration or replacement of any damage facility, equipment, material and the like shall be made on the contractor due to his negligence in providing suitable temporary covering.
- Provide the appropriate scaffoldings, board ups, safety nets and related items to ensure proper installation of all framing system and protection of the area, at the expense of the contractor as its basic equipment.

Division 2 – Site Construction

02200 Site Preparation

Mobilization / Demobilization

- This work includes mobilization process, provision for warning signs, including barricades, temporary facilities, temporary fences, warning lights and similar safeguards shall be provided by the Contractor as they are required for protection of his manpower and others during the construction life of this project.
- Demobilization procedure shall include clearing of the affected areas from all rubbish, trash, debris, and all superfluous building materials and restore all areas that were damaged as affected by the works and leave the site clean to the satisfaction of the Project Inspector or his representative and End-user.

02230 Site Clearing

- Clear the area from all obstructions or as affected by the construction works, except those structures indicated on the drawings or designated by the Project Architect/Engineer to be left standing. It shall be properly protected from incidental damage due to construction works by the erection of suitable barriers upon approval of the Project Architect/Engineer.

02290 Site Monitoring

- Site monitoring shall be a must to the contractor for the effective implementation of the project. Any discrepancies on plans and actual site conditions shall be properly coordinated with the Project Architect/Engineer concerned for verification.
- Regular coordination meeting shall be done between the contractor or its representative and the Project Architect/Engineer concerned at CPDMO.

02300 Earthwork

- The contractor shall supply all labor, plant, materials, equipment and other facilities required to complete all earthworks in an acceptable manner as shown in the drawings and as specified herein. This work shall include, clearing, staking, excavation, sub base preparation, backfilling, compaction and trimming for final grades. It also include site drainage, utility service connection for sewer, water supply, power and all appurtenant works in accordance with the contract and as may be directed by the Resident Architect/Engineer.

Material Requirements

- All filling materials, whether native to the site or imported, shall be free of debris, roots, vegetation or other deleterious materials. All earth fill materials, sand and gravel shall be free of any clods or stones larger than 50mm in their largest dimension except as otherwise shown or specified.
- Excavated materials that can be compacted to the required density and which are otherwise judged by the Resident Engineer (RE) to be acceptable maybe used for backfill material as directed.

- Bedding materials shall be used as shown in the drawings and as directed by the Resident Engineer (RE). The material shall be hard, durable stone, and if in direct contact with a fabric cloth shall be free of sharp edges. The stone shall be 19mm (3/4 in.) maximum size graded by weight as follows:

Sieve Size (Square Openings)	Percent by Weight
19mm (3/4 inch)	90 – 100
12mm (1/2 inch)	10 – 50
9.5mm (3/8 inch)	0 – 20
4.75mm (No. 4)	0 – 5

Scope of Work:

- The area shall be cleared of rubbish, loams, refuse, grass, roots and other perishable or objectionable matter to a suitable sub-grade.
- All unsuitable materials that lie within the operational area shall be removed and disposed from the site, to a dump designated by the Resident Engineer or Administrator or spread in locations in a manner approved by the Resident Engineer. Clearing may be undertaken by any method which is not detrimental to the work, or waste of earth materials.
- The building shall be staked out and all lines and grades as shown on the plans shall be established accurately before the start of excavation. Basic batter boards and reference marks shall be erected at such places where they will not be disturbed during the construction of the foundation.
- Trenching for water, sewer and storm drainage pipelines shall be done according to line and depths as shown in the drawings. Trench shall be of sufficient width to accommodate the proper laying, installations and jointing of pipes. Lines and depths not indicated on the drawings shall be determined by the Resident Engineer before laying of pipelines is done. All trenches shall be fully backfilled at the end of each day or in lieu thereof, when approved by the Resident Engineer.
- Where trenches for water, sewer and storm drainage pipelines requires the dismantling of road pavements, the contractor shall undertake trenching after obtaining written permit. The contractor shall restore such pavements to their original and better condition immediately after backfilling of pipes without any additional cost.
- The excavation lines shown on the drawings are solely for the purpose of computing quantities for payment purposes. The owner specifically does not warrant that actual sides can be made to the excavation lines shown.
- The Contractor shall design, furnish, put in place, and maintain such sheeting and bracing as may be required to support the sides of excavations. Care shall be taken to prevent voids outside the sheeting, but if voids are formed, they shall be immediately filled and rammed. Prior to installation of any sheeting and bracing, the Contractor shall submit in writing for review by the Resident Engineer (RE) the type of sheeting and bracing to be used and his intended method of placing and maintaining it as required.
- All sheeting and bracing not left in place shall be carefully removed without endangering the new installations and other existing utilities of any adjoining property.
- All voids caused by withdrawal of sheeting shall be immediately refilled with sand and compacted by ramming with suitable tools, by watering, or as otherwise directed.

- Wood sheeting shall not be withdrawn if driven below the bottom of any drain, and under no circumstances shall any wood sheeting be cut off at a level lower than 0.30m above the top of the drain.
- The Contractor shall leave in place to be embedded in the backfill, all sheeting, bracing, etc. which the Resident Engineer may direct him in writing to leave in place at any time during the progress of the work for the purpose of preventing injury to structures, utilities or property, whether public or private.
- Generally, limits the depth of excavation for building and pipelines shall be in accordance with details shown on the drawings.
- Excavations shall include the removal of all materials of whatever nature encountered including all obstructions of any nature that would interfere with the proper execution and completion of the work. The removal of these materials shall conform to the lines and grades shown or ordered. The Contractor shall supply, place and maintain all supports and shoring that may be required for the sides of the excavation and all pumping, ditching or other approved measures for the removal or exclusion of water including taking care of storm water and waste reaching the site of the work from any source so as to prevent damage to the work or adjoining property. The walls and faces of all excavations in which workers are exposed to danger from unstable ground shall be guarded against by a shoring system, sloping of the excavation, or some other acceptable method. The Contractor shall supply, install and maintain such sheeting; bracing, etc. as may be necessary to protect the workers and to prevent any movement of earth which could cause injury, delay of work, or endanger adjacent structures.
- Excavation to depth greater than that shown on the drawings may be required, without any additional cost. The depth and extent of over excavation shall be approved by the Resident Engineer. If necessary, the Resident Engineer will include an estimated allowance for loss of material into soft sub grade. This allowance will be separately determined by the Resident Engineer for each individually measured section of work. The Contractor is required to draw the attention of the Resident Engineer in each instance and obtain the Resident Engineer's determination of the allowance to be used.
- The excavation shall be then be refilled to the grade of the bottom of the bedding layer with either imported ordinary material, gravel, or other materials that is acceptable. The material to be used shall be placed in layers, brought to optimum moisture content and compacted to ninety (90%) percent of the modified AASHO standard.
- Bedding material shall be sand or crushed rock as previously specified. Bedding material shall be placed to a minimum depth of 100mm and compacted to 95% of modified AASHO compaction elsewhere.
- Launching an initial backfill to a depth of 150mm above the pipe shall be carried out using coarse sand as previously specified. The backfill shall be carried out in layers not exceeding 150 mm compacted thicknesses and to 95% of modified AASHO compaction under road ways and to 90% elsewhere.
- The remainder of the backfill shall be Select Native Material subject to the Resident Engineer's approval except under roadways where sand or crushed rock compacted to 95% of modified AASHO compaction shall be used.
- Filling shall be carried up in layers not exceeding 150 mm compacted thicknesses. Compaction shall be carried out using vibrating rollers or as directed by the Resident Engineer.